

HW:

1) I have a confidence interval for the mean that is (45, 56).

(a) What is the sample mean?

(b) What is the margin of error?

(c) Assuming that the standard deviation is 8.3 units and the sample size is 30, what is the level of confidence?

2) Find the exact t^* for the following (use the calculator):

(a) Conf = 91% $n = 165$

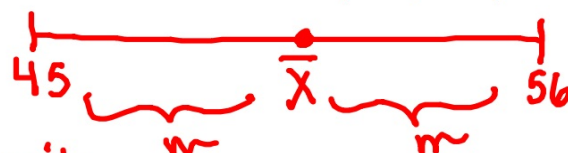
$$t^* = 1.7055$$

(b) Conf = 97% $n = 203$

$$t^* = 2.1855$$

1) I have a confidence interval for the mean that is (45, 56).

(a) What is the sample mean?



(b) What is the margin of error?

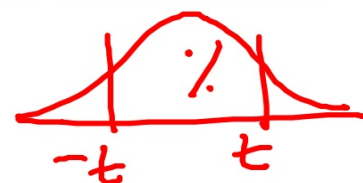
$$\bar{x} \pm m$$

5.5 units

(c) Assuming that the standard deviation is 8.3 units and the sample size is 30, what is the level of confidence?

$$m = t^* \left(\frac{s}{\sqrt{n}} \right)$$
$$5.5 = t^* \left(\frac{8.3}{\sqrt{30}} \right)$$

$$t^* = 3.63$$



$$t.cdf(-3.63, 3.63)$$

$$99.89\%$$